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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/840,211	05/05/2004	Gary Grabaum	G00359/US	9451
35758	7590	12/19/2005	EXAMINER	
GKN DRIVELINE NORTH AMERICA, INC 3300 UNIVERSITY DRIVE AUBURN HILLS, MI 48326			STORMER, RUSSELL D	
			ART UNIT	PAPER NUMBER
			3617	

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/840,211	Applicant(s) GRABAU, GARY	
	Examiner Russell D. Stormer	Art Unit 361	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: ____ | 6) <input type="checkbox"/> Other: ____ |

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the reference character "26" as used in the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because the embodiments of figures 2, 4, and 6 use the same reference characters as used in figures 1 and 3, even though figures 2, 4, and 6 show different parts. The different parts should be designated by reference characters such as 12, 12', 12."

3. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be

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notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: The reference characters used for the different embodiments should be different, such as 12, 12', 12" to correspond to the changes to be made in the drawings.

Appropriate correction is required.

5. The disclosure is objected to because of the following informalities: The term "new generation" bearings is objected to because it does not appear to be a common term for a specific type of bearing or bearing assembly. This term should be deleted from the disclosure, including the claims.

Appropriate correction is required.

Claim Objections

6. Claims 10-13 are objected to because of the following informalities: It appears that the claims are intended to be multiple dependent claims, but only one claim is referred to. Applicant should delete the phrase "any one of" from each of the claims.

The claims have been treated on the merits as depending from the claim referenced.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-7, 10-13, and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Mizukoshi et al (US Patent 6135571).

Note the retaining ring and groove shown in any one of figures 18, 19, 22, 23, 26, 30, 33, and 38, for instance.

With respect to claims 17-19, the method of assembly would be inherent in view of the structure of the hub and bearing assembly.

9. Claims 1-13, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Sahashi et al (US Patent Application Publication 2001/0016520)

Note the retaining ring 157 fitted in the grooves 145 as shown in figure 25.

With respect to claim 17 and 18, the method of assembly would be inherent in view of the structure of the hub and bearing assembly.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 14, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dougherty in view of Sahashi et al (2001/0016520).

Note the backstop (unlabelled) on the steering knuckle as shown in figures 1, 2, 3, and 4. The wheel hub is not retained by a ring.

Sahashi et al teaches the use of grooves 145 in the hub internal bore 151 and the spindle 143 for receiving a retaining ring 157 as shown in figure 25 as an improvement over the assembly in which a threaded fastener is used (figure 40).

For the wheel hub assembly of Dougherty to be retained on the spindle 80 by grooves in the spindle and the hub internal bore instead of the threaded fastener would have been obvious as taught by Sahashi et al in order to simplify the construction and assembly.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references show other hub and bearing assemblies. Note for instance the patent to Kapaan et al which discloses a self-contained bearing assembly.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell D. Stormer whose telephone number is (571)


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272-6687. The examiner can normally be reached on Monday through Friday, 9 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joe Morano can be reached on (571) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

12/12/05


RUSSELL D. STORMER
PRIMARY EXAMINER
12/12/05